

Annual Index

Volume 13

January to December, 1983

Subject index

A

- (Architecture)
 American Institute of Architects (AIA)
 1983 Honor Awards June-41
- (Awards of Distinction)
 E. F. Hauserman Showroom Oct-12
- (Awards of Excellence)
 EPCOT Center Pavilions Oct-21
 LeCygne Restaurant Oct-16
 Spaceship Earth—lighting the geodesic sphere Oct-19
- (Awards of Merit)
 Airport and roadway Oct-38
 Churches Oct-42
 Commercial Oct-32
 CRT applications Oct-29
 Entertainment Oct-38
 Hospitals Oct-31
 Hotels Oct-33
 Industrial Oct-40
 Offices Oct-34
 Public places Oct-43
 Residences Oct-28
 Restaurants Oct-48
 Schools Oct-29
 Sports Oct-39

C

- (Computer Programs)
 Available lighting-computer programs:
 a compendium and survey Mar-37
 Available lighting-computer programs questionnaire Nov-41

D

- (Daylighting)
 Solar illumination for interior spaces April-26
- (Directory—Lighting Equipment and Accessories)
 Alphabetical company lighting and product line descriptions Dec-14
 Introduction Dec-13
 Lighting accessory manufacturers Dec-56
 Light source manufacturers Dec-54
 Luminaire manufacturers Dec-55

E

- (Education)
 Instructional objectives for lighting education with an Architectural Engineering Curriculum Nov-23
 Toward the rendering of lighting design Nov-33
- (Energy Utilization)
 Airport Passenger Building—Albany County Airport Feb-13
 Civil/Mineral Engineering Building—University of Minnesota Feb-16
 Daylighting passive solar manufactured building for commercial applications Feb-24
 Effective lighting control Feb-18
 Energy-saving product news Feb-38

Government Service Insurance System

Headquarters in Manila Feb-12

Introduction and background Feb-8

- Liberty National Bank Headquarters—Norstar building in Buffalo, NY Feb-10

- Load management, lighting codes, energy and pumpkins Feb-34

(Experiments)

Lamps for lighting people Feb-42

Lighting for a visual inspection task Jan-32

I

(Industrial)

Proposed American National Standard

Practice for Industrial Lighting July-29

(Institutional)

Green Bay Correctional Institution Aug-28

L

(Light and Architecture)

Special feature—"Reflections from the past" Spain: floodlighting design and influence May-27

(Lighting Design Awards)

Introduction Oct-11

O

(Offices)

Bi-State Development Agency Headquarters Mar-14

- Light distribution controlling mediums for use in facilities utilizing CRT's. Mountain Bell Utah State Headquarters Building Mar-24

- Remodelling a historic landmark—Malo Mansion Mar-17

(Outdoor)

A festival of lights—Niagara Falls, NY Dec-10

- Cleveland's Terminal Tower—point-by-point illumination Mar-20

- Optimization techniques for outdoor lighting design Mar-40

P

(Public Places)

Astor Court April-19

- Display lighting for phase one of the Digital Computer Museum April-22

- Equinox in blue: pure form and light. Horticultural Building at the Canadian National Exhibition Nov-18

- King Broadcasting—communicating through light Nov-14

- Santa Clara Mission: theatrical lighting in a religious setting July-22

- Shogun revisited: discovering Japan in Northbrook, IL July-26

- Simulating tropical daylight at Buffalo Zoological Gardens April-16

- South Bay Club Condo: lighting under deadline May-25

- Stanford Main Library—efficient and uncompromising lighting May-18

- Three new hotels for Hong Kong Aug-22

- Yao Shopping Center: 'cotton string' image conveyed through neon May-16

R

(Renovations)

Relighting for the future: Erie Community College June-18

Sleep Country—low voltage lighting receives high marks June-22

(Residences)

New Jersey residence and poolhouse June-14

(Restaurants)

White Castle Restaurant: A wider view on fast food lighting Aug-26

S

(Sources)

Low-pressure sodium lighting—the past, present and future June-25

Paint colors for HPS lighting and a practical technique for determining reflectance under various lighting systems Jan-20

(Special Feature)

Reflections from the present on the past—"Concepts beyond the IES framework," and "Concepts reconsidered" June-34

(Sports Lighting)

Illuminance selection procedure for sports lighting May-38

T

(Theatrical)

Addendum to "Lighting for theatrical presentations on educational and community proscenium-type stages" Sept-27

A glossary of commonly used terms in theatre, television and film lighting Nov-43

Sound and light spectacle "Jerash". Stage lighting—A guide to the planning of theatres and public building auditoriums Sept-12

Theatrical vs. architectural—bridging the gap Sept-17

Spaceship Earth Jan-10

Television newsroom lighting—Capital Broadcasting Co. Jan-18

Theatrical vs. architectural lighting—bridging the gap Jan-13

V

(Views & Opinions)

Architectural lighting Aug-16

Furniture-mounted task/indirect ambient lighting—has its time expired Aug-30

Human Factors in Lighting—a review May-44

Light, Color & Environment—a book review Jan-36

Observations on the importance of "critical observation" Jan-28

What is "natural" light? April-34

Author index

B

Begemann, S. H. A.—Low-pressure sodium lighting—the past, present and future June-25

Bennett, C. A.—Lamps for lighting people Feb-42

Bennett, C. A.—Lighting for a visual inspection task Jan-32

Bernecker, C. A.—Instructional objectives for lighting education within an Archi-

tectural Engineering Curriculum	Nov-23	S	The President's message	Nov-8,
Bleasby, P.—Spaceship Earth	Jan-10	Sedrick, A. V.—Daylighting passive solar manufactured building for commercial applications	Feb-24	Dec-6
van Bommel, W. J. M.—Low-pressure sodium lighting—the past, present and future	June-25	Squillace, S. S.—IES Annual Report and Update 1981-82	April-56	R
Brandston, H.—Good grief, it's Howard Brandston! or The challenges in lighting design	Aug-38	Sternberg, L. S.—IES Annual Report	Sept Insert	Regional update Jan-56, Feb-59, Mar-54, April-62, May-60
Brandston, H.—The President's message	Nov-8,			
Dec-6		W		
C		Walker, T. C.—Optimization techniques for outdoor lighting design	Mar-40	Scheduled IES meetings Jan-58
Caminada, J. F.—Architectural lighting	Aug-16	Wotton, E.—Human Factors in Lighting—a review	May-44	Section news Feb-58
Casal, J. M.—Special feature—"Reflections from the past" Spain: floodlighting design and influence	May-27	Zackrisson, H. B., Jr.—Furniture-mounted task/indirect ambient lighting—has its time expired?	Aug-30	
Christensen, M.—Paint colors for HPS lighting and practical technique for determining reflectance under various lighting systems	Jan-20	Zackrisson, H. B., Jr.—Light distribution controlling medium for use in facilities utilizing CRT's	Mar-24	U
Corth, R.—What is "natural" light?	April-34	Zekowski, G.—Observations on the importance of "critical observation"	Jan-28	Upcoming IES meetings Feb-56
D				
Douglas, C. A.—IES Gold Medalist acceptance speech	Oct-50			
E				
Erhardt, L.—Light, Color & Environment—a book review	Jan-36	Society News Index		
F				
Flynn, J. E.—Reflections from the present on the past—"Concepts beyond the IES framework"	June-34	A		
Gellings, C. W.—Load management, lighting codes, energy and pumpkins	Feb-34	Atlanta Conference highlights	Jan-38	
Goodrich, R.—"Concepts reconsidered"	June-34	C		
G		Cacique Student Award info	Nov-36	
Gellings, C. W.—Load management, lighting codes, energy and pumpkins	Feb-34	Conference registration and travel arrangements forms	April-42-43	
H		D		
Goodrich, R.—"Concepts reconsidered"	June-34	DSA and Fellows named	Sept-33	
I		G		
Lewin, I.—Optimization techniques for outdoor lighting design	Mar-40	Good grief, it's Howard Brandston! or The challenges in lighting design	Aug-38	
Lin, A. C.—Lamps for lighting people	Feb-42	H		
Lowell, J. M.—Illuminance selection procedure for sports lighting	May-38	Howard Brandston elected IES president	Aug-38	
M		I		
Maloney, L. J.—Illuminance selection procedure for sports lighting	Mar-40	IES Annual Conference preview	April-41	
Marsteller, J.—Three new hotels for Hong Kong	Feb-42	IES Annual Conference registration and travel forms	May-58,	
Misra, S.—Lighting for a visual inspection task	May-38	July-70		
N		IES Annual Report	Sept Insert	
Ngai, P. Y.—Solar illumination for interior spaces	April-26	IES Annual Report and Update 1981-82	April-56	
P		IES call for papers	Oct-56	
Peterson, D.—Effective lighting control	Feb-18	Dec-7		
R		IES committee listing	Jan-43	
Reed, G. P.—Daylighting passive solar manufactured building for commercial applications	Feb-24	IES conference papers available	Aug-42	
Ripman, C. H.—Display lighting for phase one of the Digital Computer Museum	April-22	IES Gold Medalist	Sept-32	
Rubinstein, F.—Effective lighting control	Feb-18	IES Gold Medalist acceptance speech	Oct-50	
Rupp, W.—Toward the rendering of lighting design	Nov-33	IES membership application	Feb-61, May-61	
S		IES Regional Conference	April-63	
Sedrick, A. V.—Daylighting passive solar manufactured building for commercial applications	Feb-24	IES Regional Conference listing	Feb-63	
Squillace, S. S.—IES Annual Report and Update 1981-82	April-22	IES sustaining member listing	Sept-39	
Sternberg, L. S.—IES Annual Report	Feb-18	"IES Times" announcement	May-60	
T		International Illumination Design Awards entry form	Nov-37	
Steklis, J. J.—IES Gold Medalist	Nov-33	Introducing the candidates	Mar-46	
U		L		
Steklis, J. J.—IES Gold Medalist	Nov-33	Lighting Design Awards entry from	Jan-60	
Steklis, J. J.—IES Gold Medalist	Nov-33	Lighting World II highlights	Aug-48	
V		O		
Steklis, J. J.—IES Gold Medalist	Nov-33	Obituary—R. Zabel, IES past president	Oct-52	
W				
Walker, T. C.—Optimization techniques for outdoor lighting design	Mar-40			
Watson, E.—Human Factors in Lighting—a review	May-44			
X				
Zackrisson, H. B., Jr.—Furniture-mounted task/indirect ambient lighting—has its time expired?	Aug-30			
Zackrisson, H. B., Jr.—Light distribution controlling medium for use in facilities utilizing CRT's	Mar-24			
Zekowski, G.—Observations on the importance of "critical observation"	Jan-28			
Y				
Z				
Zekowski, G.—Observations on the importance of "critical observation"	Jan-28			
AA				
AAP, Best architecture and urban planning books Awards announced by				June-4
ABET, Third accreditation commission and Engineering Foundation Conference announced by				May-57
Accent on education				Mar-45
Advanced Optical Center in Rochester, New York State designates				July-6
AHLI announces 1982 award winners				Mar-61
Annual Conference update				July-4
ANSI minimum design loads standard extensively revised				Mar-58
ANSI publishes 1983 catalog				June-4
ANSI slide show: Why We Need Standards				Sept-60
Arabian desert, World's largest new university rises amid Saudi				June-6
Architects' society honors Iiff design				Feb-52
Architecture and urban planning books Awards announced by AAP, Best				June-4
Arizona solar tracking system collects precise data				Mar-58
ASHRAE approves SI edition of handbook				Feb-52
Association, "Cash" Crouch honored by American Optometric				Oct-54
Association executive honored by electrical industry				June-4
ASTM Award of Merit announced				Oct-64
Award: announced, Interiors				Sept-60
Award, "Cash" Crouch receives top optometry				June-5
Award, Kittredge Building wins downtown Denver				Sept-61
Award of Merit announced, ASTM				Oct-64
Awards announced by AAP, Best architecture and urban planning books				June-4
Awards announced, Engineering education				Nov-49
Awards invites entrants, Construction documents				Oct-63
Awards judges named, Lighting Design				July-7
Awards program news				Aug-10
Award, Terry Cloninger recipient of newly established				Feb-52
Award, The Edison				Jan-57
Award to University of Kansas, Besal Fund				Dec-2
Award winners, AHLI announces 1982				Mar-61
BB				
Besal Fund Award to University of Kansas				
Bioengineering professor receives Edison Medal, Penn				Dec-2
				June-64

Department News index

Books & pamphlets	April-53,	Electric Industry 'Man of the Year', Edison's Chief Named	Sept-60	L
May-52, June-56, Aug-53, Sept-58		Employment Opportunities	May-63,	LD&A ad offices
Building wins downtown Denver award, Kittredge	Sept-61	Aug-62, Dec-58		Feb-64, Mar-64, April-64, May-64,
		Energy Conference, Solar technology sessions slated for Sixth Miami Alternative		June-64, July-72, Aug-64, Sept-64,
		Energy Management graduate program in 1983, NYIT offers	Oct-64	Oct-64, Nov-64, Dec-59
C		Energy Technology Conference	June-4	LD&A Lighting Directory questionnaire
"Cash" Crouch honored by American Optometric Association	Oct-54	Engineering deans address educational ratios	Jan-59	Aug-15, Sept-10
"Cash" Crouch receives top optometry award	June-5	Engineering education awards announced	Oct-51	Letters
Century of light, Northeast Utilities observes a	Sept-59	Engineering education, NSPE technology policy task force target	Nov-49	Birnberg, B.
Chief Named Electric Industry 'Man of the Year', Edison's	Sept-60	Engineering Foundation Conference announced by ABET, Third accreditation commission and	Feb-52	Erhardt, E.
CIE schedules twentieth session in Warsaw	Mar-61	Engineering, Major growth forecasted in computer-aided	May-57	Jankowski, W.
City Hall 'test site' for photovoltaic panel, Palm Springs	Feb-50	Engineer named by Eta Kappa Nu, Outstanding Young Electrical	July-6	Lurkis, A.
Cloninger recipient of newly established award, Terry	Feb-52	Engineer's Week—February 20-26	Sept-59	Mann, P.
Color technology programs to be held at RIT	Feb-50	Equipment performance data survey underway, TTFL	Jan-59	Millar, R.
Color television lighting report reissued	Mar-64	F	Mar-64	Mull, M. H.
Commission and Engineering Foundation Conference announced by ABET, Third accreditation	May-57	Facility operations and maintenance, NIBS signs contract with VA to study	Feb-53	Nuckolls, J. L.
Computer-aided engineering, Major growth forecasted in	July-6	Foundation Conference announced by ABET, Third accreditation commission and Engineering	May-57	Sonnenfeld, S.
Conference, Solar technology sessions slated for Sixth Miami Alternative Energy	Oct-64	G	Oct-6	Zackrisson, H. B.
Construction documents awards invites entrants	Oct-63	Glass arts competition opens	Nov-55	Zekowski, G.
Course available on videotape from UK, TV lighting	Aug-51	H		Light and aging, Symposium looks at
Courses & seminars	April-57,	Handbook, ASHRAE approves SI edition of	Feb-52	Lighting course available on videotape from UK, TV
Sept-62, Nov-51		Historic landmark near mall to be restored, Denver	June-6	Lighting Design Awards judges named
Crouch honored by American Optometric Association, "Cash"	Oct-54	Hospital, Interspace Incorporated retained for interior design of Cumberland youth	May-57	Lighting device shipments to total \$29 billion by 1995, U.S.
Crouch receives top optometry award, "Cash"	June-5	I		Lighting report reissued, Color television
D		IEAust publications, Renouf USA distributes	April-64	Lighting Research Institute formed, The
Data, Arizona solar tracking system collects precise	Mar-58	IES Conference registration and travel forms	June-60,	Lighting World II opens April 25 in New York City
Data survey underway, TTFL equipment performance	Mar-64	Industry, Association executive honored by electrical	July-70	Lighting World II scheduled for New York City
Denver historic landmark near mall to be restored	June-6	Industry news	June-6	Light, Northeast Utilities observes a century of
Design, Architects' society honors Iiff, Design Awards judges named, Lighting	Feb-52	Mar-49, April-55, May-54, June-58, Aug-60, Sept-63, Oct-60, Nov-63	June-4	Lightif design, Architects' society honors
Design firms at peak of salary survey, Multi-discipline, multi-office	July-7	Incorporated retained for interior design of Cumberland youth hospital, Interspace	Feb-46,	M
Design loads standard extensively revised, ANSI minimum	May-57	Industry 'Man of the Year,' Edison's Chief Named Electric	Sept-60	Maintenance, NIBS signs contract with VA to study facility operations and
Design of Cumberland youth hospital, Interspace Incorporated retained for interior	June-6	Institute formed, The Lighting Research. Interniors Award: announced	Jan-57	Medal, Penn bioengineering professor receives Edison
E		Interniors Awards, Fourth annual	Sept-60	Memorial Scholarship, The Richard Kelly
Edison Award, The	Jan-57	International affair, TTFL Symposium in Orlando, FL: An	June-6	Merit announced, ASTM Award of
Edison Medal, Penn bioengineering professor receives	June-64	Interspace Incorporated retained for interior design of Cumberland youth hospital	Feb-46,	Multi-discipline, multi-office design firms at peak of salary survey
Edison's Chief Named Electrical Industry 'Man of the Year'	Sept-60	K		N
Editor's notes	Feb-7,	Kappa Nu, Outstanding Young Electrical Engineer named by Eta	Sept-59	NAED officers introduced
Mar-9, April-15, May-14, Oct-10		Kelly Memorial Scholarship, The Richard	Jan-57	NEMA Outstanding Service Award
Educational ratios, Engineering deans address	Oct-51	Kittridge Building wins downtown Denver award	Sept-60	New Products
Education awards announced, Engineering	Nov-49		Sept-60	Aug-56, Sept-28, Nov-52
Education, NSPE technology policy task force target: Engineering	Feb-52		June-60,	New York City, Lighting World II scheduled for
Electrical Engineering named by Eta Kappa Nu, Outstanding Young	Sept-59		July-70	New York State designates Advanced Optical Center in Rochester
Electrical Industry, Association executive honored by	June-4		June-6	NIBS signs contract with VA to study facility operations and maintenance
				Northeast Utilities observes a century of light
				Sept-59
				NSPE technology policy task force target: Engineering education
				Feb-52
				Nu, Outstanding Young Electrical Engineer named by Eta Kappa
				Sept-59
				NYIT offers Energy Management graduate program in 1983
				June-4
O				O
				Obituary
				Oct-63
				Officers introduced, NAED
				Sept-60
				Operations and maintenance, NIBS signs contract with VA to study facility
				Feb-53
				Optometric Association, "Cash" Crouch honored by American
				Oct-54
				Optometry award, "Cash" Crouch receives top
				June-5

Outstanding Young Electrical Engineering named by Eta Kappa Nu	Sept-59	Reflections from the past Feb-6, Mar-6, April-14, July-14, Aug-9 Reissued, Color television lighting report	Jan-6, Mar-64	Slide show: Why We Need Standards, ANSI Solar technology sessions slated for Sixth Miami Alternative Energy Conference	Sept-60	
P						
Palm Springs City Hall 'test site' for photovoltaic panel	Feb-50	Renouf USA distributes IEAust publications Report reissued, Color television lighting	April-64	Solar tracking system collects precise data, Arizona Standard extensively revised, ANSI minimum design loads State designates Advanced Optical Center	Oct-64	
Penn bioengineering professor receives Edison Medal	June-64	Research Institute formed, The Lighting	Mar-64	in Rochester, New York Survey underway, TTFL equipment performance data Symposium in Orlando, FL: An international affair, TTFL	Mar-58	
People Feb-54, Mar-2, April-2, May-6, June-2, July-18, Aug-63, Sept-8, Oct-2, Nov-4	Jan-7,	RIT, Color technology programs to be held at RIT, RPI Color program moves to	Jan-57, April-12	State designates Advanced Optical Center in Rochester, New York Survey underway, TTFL equipment performance data Symposium in Orlando, FL: An international affair, TTFL	July-6	
Performance data survey underway, TTFL equipment	Mar-64	S				
Photovoltaic panel, Palm Springs City Hall 'test site' for	Feb-50	Saudi Arabian desert, World's largest new university rises amid	June-6	Symposium looks at light and aging	Aug-51	
Profession services ad	May-63	Scheduled events April-13, June-3, July-2, Aug-55, Sept-2, Oct-45	Jan-4,	System collects precise data, Arizona solar tracking	Aug-51	
Program moves to RIT, RPI Color	April-12	Schedules twentieth session in Warsaw, CIE Scholarship, The Richard Kelly Memorial	Mar-61	T		
Programs to be held at RIT, Color technology	Feb-50 SI edition of handbook, ASHRAE approves	Jan-57	Task force target: Engineering education, NSPE technology policy	Feb-52	
PSMJ-TV series announced	Feb-53 Feb-52	T			
R						
Ratios, Engineering deans address educational	Oct-51 Feb-52	Technology programs to be held at RIT, Color	Feb-50		

U.S. Postal Service STATEMENT OF OWNERSHIP, MANAGEMENT AND CIRCULATION <small>Required by 39 U.S.C. 3685</small>					
1. A. TITLE OF PUBLICATION LIGHTING DESIGN + APPLICATION		1B. PUBLICATION NO.		2. DATE OF FILING	
		2	5	9	0
3. FREQUENCY OF ISSUE Monthly		3A. NO. OF ISSUES PUBLISHED ANNUALLY		3B. ANNUAL SUBSCRIPTION PRICE	
4. COMPLETE MAILING ADDRESS OF KNOWN OFFICE OF PUBLICATION (Street, City, County, State and ZIP Code) (Not printers) 345 East 47th Street, New York, NY 10017					
5. COMPLETE MAILING ADDRESS OF THE HEADQUARTERS OF GENERAL BUSINESS OFFICES OF THE PUBLISHER (Not printers) IES, 345 East 47th Street, New York, NY 10017					
6. FULL NAMES AND COMPLETE MAILING ADDRESS OF PUBLISHER, EDITOR, AND MANAGING EDITOR (This item MUST NOT be blank) PUBLISHER (Name and Complete Mailing Address)					
Illuminating Engineering Society of North America, 345 East 47th Street, New York, NY 10017					
EDITOR (Name and Complete Mailing Address) Wanda P. Jankowski, IES, 345 East 47th Street, New York, NY 10017					
MANAGING EDITOR (Name and Complete Mailing Address) (same as Editor)					
7. OWNER (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding 1 percent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a partnership or other unincorporated firm, its name and address, as well as that of each individual must be given. If the publica- tion is published by a nonprofit organization, its name and address must be stated.) (Item must be completed.)					
FULL NAME Illuminating Engineering Society of North America		COMPLETE MAILING ADDRESS 345 East 47th Street, New York, NY 10017			
8. KNOWN BONDHOLDERS, MORTGAGEES, AND OTHER SECURITY HOLDERS OWNING OR HOLDING 1 PERCENT OR MORE OF TOTAL AMOUNT OF BONDS, MORTGAGES OR OTHER SECURITIES (If there are none, so state)					
FULL NAME None		COMPLETE MAILING ADDRESS			
9. FOR COMPLETION BY NONPROFIT ORGANIZATIONS AUTHORIZED TO MAIL AT SPECIAL RATES (Section 42112 DMM only) The purpose, function, and nonprofit status of this organization and the exempt status for Federal income tax purposes (Check one)					
(1) HAS NOT CHANGED DURING PRECEDING 12 MONTHS		(2) HAS CHANGED DURING PRECEDING 12 MONTHS		(If changed, publisher must submit explanation of change with this statement.)	
10. EXTENT AND NATURE OF CIRCULATION		AVERAGE NO. COPIES EACH ISSUE DURING PRECEDING 12 MONTHS		ACTUAL NO. COPIES OF SINGLE ISSUE PUBLISHED NEAREST TO FILING DATE	
A. TOTAL NO. COPIES (Net Press Run)		11,416		10,200	
B. PAID CIRCULATION 1. Sales through dealers and carriers, street vendors and counter sales		NONE		NONE	
2. Mail Subscription		10,326		9,323	
C. TOTAL PAID CIRCULATION (Sum of 10B1 and 10B2)		10,326		9,323	
D. FREE DISTRIBUTION BY MAIL, CARRIER OR OTHER MEANS SAMPLES, COMPLIMENTARY, AND OTHER FREE COPIES		357		247	
E. TOTAL DISTRIBUTION (Sum of C and D)		10,683		9,570	
F. COPIES NOT DISTRIBUTED 1. Office use, left over, unaccounted, spoiled after printing		733		630	
2. Return from News Agents		NONE		NONE	
G. TOTAL (Sum of E, F1 and 2 should equal net press run shown in A)		11,416		10,200	
11. I certify that the statements made by me above are correct and complete		SIGNATURE AND TITLE OF EDITOR, PUBLISHER, BUSINESS MANAGER, OR OWNER			

PS Form
July 1982 3526

(See instruction on reverse)

